

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

Applicant: Craig Cartwright

Examiner: Ian Lobo

Serial No.: 10/616,179

Group Art Unit: 3662

Filed: July 9, 2003

Date: December 13, 2004

For: ACOUSTIC WINDOW

Mail Stop ISSUE FEE

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

This invention relates to an improved acoustic window for an acoustic waveform passage having a generally uniform transmission loss at an angle of incidence of between -40° and $+40^{\circ}$. The composition is formed from at least one core layer and at least two septa, with the core layer being a material having a generally low-acoustic-impedance, a static shear modulus between about 1.0 psi (0.007 MPa) and about 15,000 psi (103 MPa), a transverse (or through-thickness) sound velocity for the acoustic waveform of between about 700 and about 2200 meters per second, a transverse acoustic impedance of less than or equal to 4×10^6 kilograms per square meter-second, and a shear loss factor of greater than 0.02, the septa being composed of at least one ply of a material, preferably a graphite fiber reinforced epoxy composition, having a transverse acoustic impedance of less than 60×10^6 kg/m²-sec, a tensile modulus of more than 0.5×10^6 psi, a thickness of less than $0.10 \lambda_M$, and each being bonded to said core to form a sandwich with said core layer, and the acoustic waveform has a λ of at least 0.001 meter and less than 3 meters.



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INFORMATION DISCLOSURE STATEMENT LETTER

Sir:

The documents found by the International Searching Authority are being placed in the file inasmuch as the application has been allowed and the issue fee has been paid.

For the record it is being noted that all six of the references are indicated as a category A which define the general state of the art which are not considered to be of particular relevance to the invention.

Respectfully submitted,

HUDAK, SHUNK & FARINE CO. LPA

By: Daniel J. Hudak

Registration No. 25,879

DJH/lb
2020 Front Street, Suite 307
Cuyahoga Falls, OH 44221
(330) 535-2220

Attorney Docket No.: GOODR-C (201EP072)

The Applicants have met the requirements under §1.97(e)(1) inasmuch as the undersigned hereby states that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application less than three months prior to the filing of this Information Disclosure Statement. As can be seen from the enclosed documents, the date of mailing of the International Search Report was December 6, 2004. The undersigned hereby states that each and every item contained in this Supplemental Information Disclosure Statement was cited in the above noted communication of December 6, 2004, by the International Searching Authority of the PCT, i.e. the European Patent Office. Accordingly, Applicants have met 37 C.F.R. §197(c). Therefore, no fee is deemed necessary. However, if any fees are deemed necessary, please charge them to the deposit account **08-3150**.

The following patents and/or documents, were cited in the PCT International Application by the European International Searching Authority:

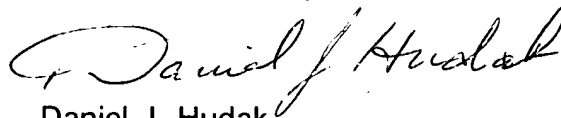
U.S. DOCUMENTS		
PATENT/DOCUMENT NO.	DATE	INVENTOR/ASSIGNEE
2,430,013	November 4, 1947	Hansell
3,426,725	February 11, 1969	Gerhardsen
4,770,267	September 13, 1988	Hauser
FOREIGN DOCUMENTS		
PATENT/DOCUMENT NO.	DATE	COUNTRY
0 274 685	July 20, 1988	EP
0 460 246	December 11, 1991	EP
2 683 969	May 21, 1993	FR

In accordance with 37 CFR 1.98(a)(2)(i) enclosed are copies of only the foreign and non-patent documents for the express purpose of providing the Patent and Trademark Office with an ample opportunity to evaluate the same and to arrive at an independent assessment of its materiality, if any, with regard to the examination of the application.

The placement of the above documents into the file is requested.

Respectfully submitted,

HUDAK, SHUNK & FARINE CO. LPA

A handwritten signature in black ink, appearing to read "Daniel J. Hudak", written in a cursive style.

Daniel J. Hudak

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Attorney Docket No.: GOODR-C (201EP072)



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CERTIFICATE OF MAILING

Sir:

The undersigned hereby certifies that the attached **INFORMATION DISCLOSURE STATEMENT LETTER, INFORMATION DISCLOSURE STATEMENT, PTO FORM-1449, COPY OF INTERNATIONAL SEARCH REPORT AND THREE FOREIGN CITED REFERENCES** were mailed to the Mail Stop Issue Fee, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, with sufficient first-class postage, no special handling, on December 13, 2004, before 5:00 PM, thereby ensuring that such document(s) will be in the hands of the U.S. Postal Service by the close of business this day.

Respectfully submitted,

HUDAK, SHUNK & FARINE CO. LPA

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Attorney Docket No.: GOODR-C (201EP072)

Enclosures: Return Postcard

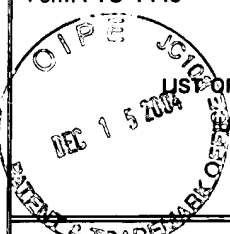
Certificate of Mailing

Information Disclosure Statement Letter

Information Disclosure Statement, Form PTO-1449,

Copy of International Search Report

Copies of Three Foreign References

Form PTO-1449		U.S. Department of Commerce Patent and Trademark Office		Atty. Docket No.: GOODR-C (201EP072)		Serial No.: 10/616,179	
 LIST OF PRIOR ART CITED BY APPLICANT (Use several sheets if necessary)				Applicant: Craig Cartwright			
				Filing Date: July 9, 2003		Group: 3662	

U.S. PATENT DOCUMENTS							
Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing date if appropriate
	AA	2,430,013	November 4, 1947	Hansell			
	AB	3,426,725	February 11, 1969	Gerhardsen			
	AC	4,770,267	September 13, 1988	Hauser			
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation Yes No
	AL	0 274 685	July 20, 1988	EP			
	AM	0 460 246	December 11, 1991	EP			
	AN	2 683 969	May 21, 1993	FR			
	AO						
	AP						

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)			
	AR		
	AS		
	AT		

EXAMINER	DATE CONSIDERED
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.